

Product range/positioning

The Xerox DocuPrint 96/4635/180 NPS/IPS printing system is fully compatible with the IBM AFP Group 3 page printer with the Advanced Function Image and Graphics (AFIG) option. The targeted impressions per month are as follows:

- DocuPrint 96 NPS/IPS: 800,000 - 3 million
- DocuPrint 4635 NPS/IPS: 1.8 million - 4 million
- DocuPrint 180 NPS/IPS: 1.8 million - 6 million

Usage outside this range may vary the service frequency.

Variables other than monthly print volume affect average number of service calls. Please contact your sales representative or Customer Service Engineer for more information.

Performance

Reliability performance of the DocuPrint 96/4635/180 NPS/IPS for the targeted impressions per month is as follows:

Average Month Print Volume	Average Calls per Month		
	96 NPS/IPS	4635 NPS/IPS	180 NPS/IPS
1 million	2.3	2.5	2.4
2 million	4.6	5	4.8
3 million	6.9	7.5	7.2
4 million		10	9.6
5 million			12
6 million			14.4

Speed

Data can be printed at rates up to 96 pages (96 NPS/IPS), 135 pages (4635 NPS/IPS), and 180 pages (180 NPS/IPS) per minute. Throughput rate can vary depending upon job complexity and system configuration.

Resolution

- 96/4635 NPS/IPS: 600 by 600 spots per inch (spi).
- 180 NPS/IPS: 600 by 2400 spots per inch (spi).

Paper handling

- 20 lb. (80 gsm) bond to 110 lb. (200 gsm) index cut-sheet weights
- Paper sizes:
 - 8 by 10 in. (203 by 254 mm) to 14 by 17 in. (356 by 432 mm), including A4 and A3
 - 7 by 10 in. (178 by 254 mm) with the 7 by 10 in. option kit, (4635 and 180 NPS/IPS only)

Input:

- Main Tray (Tray 1): 1100 sheet capacity of 20 lb. (80 gsm) bond paper
- Auxiliary Tray (Tray 2): 600 sheet capacity of 20 lb. (80 gsm) bond paper
- The 4635/180 NPS/IPS may have up to six feeder trays: two processor trays and two to four high-capacity trays.
- The 96 NPS/IPS may have up to four input trays: the two processor trays and one to two high-capacity trays.

Output:

- Output bin: Each output bin has a capacity of 2500 sheets of 20 lb. (80 gsm) bond with offset capability
- The 96 NPS/IPS has one output bin as a standard, with one additional bin available as an option. The 4635/180 NPS/IPS has two output bins as a standard, with up to two additional bins available as options.

- Sample Tray: 100 sheets of 20 lb. (80 gsm) bond

Refer to the *Helpful Facts About Paper* to help in selection of preprinted forms, perforated stock and labels.

System control module (High performance Sun workstation)

The NPS/IPS printing system comes with the **Sun Blade 1000** or the **Sun Ultra 60** workstation.

Note: This configuration may change due to Xerox policy of staying abreast of current technology.

- Processor (system unit) containing:
 - Two UltraSPARC III 750 Mhz central processing unit (CPU) modules (Sun Blade 1000) or 450 MHz CPU module (Sun Ultra 60)
 - 4 GB memory (four 1 GB DIMMs)
 - 36 GB hard disk drive
 - DVD-ROM drive
 - 3.5 inch diskette drive
- Keyboard and mouse
- 18-inch monitor (Sun Blade 1000) or 21-inch moitor (Sun Ultra 60)
- Optional Token Ring board (Sun Blade 1000)
- Two Printer Controller Interface (PCI) boards installed in the processor to interface with the print engine.

Printer module

- Black dry ink (permanent)
- Operator attention light

PSF environment

The system operates in the following PSF environments:

- MVS
- VM (channel-attached only)
- VSE (channel-attached only)
- OS/2
- AS/400 (with TCP/IP only)
- AIX

PDL compatibility

The system interprets the following text formats:

- PostScript level 1
- PostScript level 2
- PCL5c
- PCL5e
- ASCII

Space requirements

	Depth	Width	Height
Controller Note: The following is presented as an example of typical space requirements for Sun workstations. Space requirements for the printer controller are 36 by 36 inches/ 91 by 91 cm.			
Processor (Sun Blade 1000)	25 in. 63.5 cm	10 in. 25.4 cm	17.75 in. 45.1 cm
Processor (Sun Ultra 60)	17.5 in. 44.5 cm	17.5 in. 44.5 cm	5 in. 12.7 cm
Monitor (Sun Blade 1000)	10 in. 25.4 cm	17.5 in. 44.5 cm	18.5 in. 47 cm
Monitor (Sun Ultra 60)	21 in. 53.3 cm	19 in. 48.3 cm	21 in. 53.3 cm
4mm DAT SCSI tape drive (optional) (Sun Ultra 60)	12.25 in. 31 cm	7.5 in. 19 cm	2.75 in 7 cm
Keyboard	7.5 in. 19.1 cm	20 in. 50.8 cm	
HCU (for channel-attached system)	15 in. 40.8 cm	16 in. 41.6 cm	5 in. 12.6 cm
Channel interface board and channel cable connector box (for channel-attached system)	9.7 in. 24.6 cm	27.1 in. 68.8 cm	
Printer Space requirements (physical hardware and required service area) for each of the printer configurations are:			
DocuPrint 96 NPS/IPS printer with inverter feeder/stacker only	114 in. 290 cm	191 in 485 cm	
DocuPrint 96/4635/180 NPS/IPS printer with inverter feeder/stacker and one (1) feeder/stacker	114 in. 290 cm	223 in. 567 cm	
DocuPrint 4635 NPS/IPS printer with inverter feeder/stacker and two (2) feeder/stackers	114 in. 290 cm	256 in. 649 cm	
DocuPrint 180 NPS/IPS printer with inverter feeder/stacker and two (2) feeder/stackers	114 in. 290 cm	257 in. 652.8 cm	
DocuPrint 96/4635/180 NPS/IPS printer with inverter feeder/stacker and three (3) feeder/stackers	114 in. 290 cm	288 in. 731 cm	
DocuPrint 4635/180 NPS/IPS printer with inverter feeder/stacker, feeder/stacker, and bypass transport modules	114 in. 290 cm	242 in. 615 cm	

	Depth	Width	Height
DocuPrint 4635/180 NPS/IPS printer with inverter feeder/stacker and three (2) feeder/stackers, and bypass transport modules	114 in. 290 cm	276 in. 701 cm	

Note: All the dimensions indicated are taken from the system frame to the nearest wall or obstruction, shown in inches (centimeters) and are absolute minimums.

- There should be a minimum of 78 inches (1,981 mm) clearance from the floor to the nearest overhead obstruction, throughout the entire area.
- The 96/4635/180 NPS/IPS must be installed in a fixed location with minimum clearance space of 36 inches/ 914 mm around all sides of each piece of equipment for access by service personnel.
- 50 inches/1270 mm clearance is required in front of the 96/4635/180 NPS/IPS printer.
- The System Controller must be positioned within the line-of-sight of the printer for safety purposes while servicing the equipment.
- Customer must supply a table or desk for the HCU and System Controller. Work surface must be at least 36" X 36" to provide enough space for the components and cables, as well as for service access.
- For proper operation, the printer component must be perfectly level. On floors less than two degrees out of level, a leveling kit must be used to level the equipment. The printer will not function properly on floors more than two degrees out of level.

For additional space/configuration options, refer to the *Xerox DocuPrint 96/4635/180 NPS/IPS Installation Planning Guide* (Pub #721P8XXXX).

System connections

- Ethernet LAN running TCP/IP, AppleTalk, or Novell NetWare network protocol software.
- Token Ring running TCP/IP or AppleTalk network protocol software
- Bus and tag channel connection, using the Host Channel Unit (HCU) or the PCI board and control unit
- For the DocuPrint 180 NPS/IPS only: Fibre Distributed Data Interface (FDDI) running TCP/IP, Novell 3.x, or AppleTalk network protocols (available only with the Solaris 2.x environment). The FDDI supports a Single Connection configuration only.

Note: DocuPrint does not support multiple network interfaces simultaneously.

Special considerations

- Transference of the black toner to poly-vinyl surfaces is a common occurrence.
- Print quality is guaranteed to a range of three to four millimeters for edge marking and six millimeters for text printing to the edge of the page.
- Xerox carbonless paper is approved for DocuPrint 96/4635/180 NPS/IPS only. Refer to the Xerox Supplies Catalog for the reorder numbers.
- Appearance of very small spots is a common occurrence on all xerographic printers. Consult your Xerox service representative for details on acceptable spot occurrence specifications.

Environmental requirements

	Recommended	Minimum	Maximum
Operating temperature	72° +/- 4° F 22° +/- 2° C	50° F	85° F
Humidity	45% +/- 10% RH	30% RH	65% RH

	Normal	Maximum
Altitude	Up to 6,000 feet above sea level	9,000 feet above sea level

Heat dissipation	Standby	Running
Printer Module	4,454 BTU/Hr (Fuser on) 2,700 BTU/Hr (Energy Saver)	96/4635 NPS/IPS: 28,140 BTU/Hr 180 NPS/IPS: 32,770 BTU/Hr
System Controller	1,100 BTU/Hr	

Electrical requirements

	HCU or PCI board & control unit	System Controller	Printer Module	
96/4635/180 NPS/IPS 50 Hz				
Voltage	100-240 VAC +/- 10%	100-240 VAC +/- 10%	WYE (star) (3 phase, 5 wire) 380, 400, 415 VAC	
Current	15 amp	15 amp	WYE (star) (3 phase, 5 wire): 20 amp (power connection per local codes/regulations)	
96/4635/180 NPS/IPS 60 Hz				
			Cord #1	Cord #2 (180 NPS/IPS only)
Voltage	120/240 VAC (Located within 6 ft.)	120 VAC (1 phase) 2 dedicated outlets are required	120/208 VAC; or 120/240 VAC (2 phase)	120/208 VAC; or 120/240 VAC (2 phase)
Current	15 amp	15 amp	50 amp	30 amp
Receptacle NEMA Part No.	Standard wall outlet	Standard wall outlet	14-50R	14-30R

	HCU or PCI board & control unit	System Controller	Printer Module	
Power Consumption KVA Rating Operating Mode	0.8	0.8	7.3 (+.75 per middle module)	7.3 (+.75 per middle module)

Notes:

- Dedicated service is required for each component. Each power cord must have a separate circuit.
- Power requirements of the Bypass Transport are satisfied by the printer module.

Installation considerations

- Data Cables - Components can be separated up to the length of the data interface cables that connect them.
 - Printer and system controller = 20 foot/6.1 m data cable
- Power cable lengths are as follows:

Printer Controller: 8 feet / 2.1 m

Printer: 15 feet / 6 feet/1.8m/4.5m (60 Hz)

- Cable length loss must be factored in if equipment is installed in a raised-floor environment. Part of the cable length is routed inside the equipment to connect with interior power receptacles.
- All power cords attach to the back of the printer. Listed below are the distances of the printer power cord attachments from the left end of the printer as you face it:
 - Cord #1: 36 inches / 914 mm
 - Cord #2: 23 inches / 584 mm (180 NPS/IPS only)

Note: Cords 1 and 2 are for US installations only.

Supplies

	Reorder # (US)	Reorder # (XE)	Expected Yield (Prints/Carton)
Dry Ink	6R206	6R90100	180,000
Dry Ink, MICR	6R819	6R90229	180,000
Dry Ink waste bottle	93K460	93K450	N/A
Developer	5R161	5R90995	1,000,000
Developer, MICR	5R573	5R90201	600,000
Fuser agent	8R2955 (1 bottle)	8R90163 (1 bottle)	250,000

Notes:

- Expected dry ink yield is based on a 7% area coverage, 8.5"X 11" or A4 paper, and will vary depending on area coverage of the application, as well as the darkness settings of the printer.
- US only: The Xerox Supplies Marketing Center, 1.800.822.2200, is available for ordering Xerox supplies, including paper and other throughput material.

Supported hardware and operating systems

Xerox DocuPrint 4635 NPS/IPS supports the following types of networked client workstations and operating systems:

- Sun Workstation running Solaris operating system
- PC running MS-DOS 6.2 and Microsoft Windows 3.1, using Ethernet with TCP/IP or Novell NetWare, Windows95, Windows NT
- PC 386 or 486, running MS-DOS, version 6.2, with one or more of the following TCP/IP packages:
 - PathWay Access 3.1, Wollongong Integrated Networking/ Transmission Control Protocol (WIN/TCP) for DOS, release 6.0
 - FTP software, PC-TCP/IP for DOS, release 6.0
 - Sun Personal Computer Network File Services (PC-NFS), version 5.1
- IBM RS/6000 running IBM AIX, version 4.1
- HP/Apollo running HP-UX, version 10.01
- DECStation 5000/200 running DEC Ultrix, version 4.3
- VAXStation 2000 running DEC VMS, version 5.5, with WIN/TCP, version 5.1
- Apple Macintosh, System 7 (7.5), using AppleTalk through EtherTalk, phase 1 or 2
- Any system that supports RFC-1179 lpr/lpd

Diagnostics (Sixth Sense Technology)

Sixth Sense technology is a user-friendly suite of tools that allow service personnel to connect with a customer system and evaluate its performance while the system is being used. The Customer Service Engineer (CSE) can troubleshoot problems remotely, transfer, apply, and remove patches remotely, and, if an on-site call is required, arrive with the solution to fix the problem.

Customer benefits of using this technology include:

- Diagnostic help and identification of required parts before the service visit
- Planned visits based on known problems and/or replacement of wear-out items
- Customer self-maintenance to provide faxed replacement change reminder to trained operators.

The Sixth Sense feature is available to customers at no charge through Xerox Service. Customers need to provide an analog phone line for use by the Sixth Sense modem connection, and a 120 Volt outlet for the modem to connect to. Customers unable to dedicate a phone line to the Sixth Sense connection may purchase three or five port phone share devices.

Xerox DocuPrint 96/4635/180/2000 Series NPS/IPS

Customer Information

Quick Reference Card